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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,496	03/08/2004	Ben Esposito	174/299	3030

36981 7590 03/14/2007

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EXAMINER	
LUU, AN T	
ART UNIT	**PAPER NUMBER**
2816	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/796,496	ESPOSITO ET AL.	
	Examiner	Art Unit	
	An T. Luu	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-30 and 32-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *27-30 and 32-34* is/are allowed.

6)☒ Claim(s) *1-3 and 5-24* is/are rejected.

7)☒ Claim(s) *25-26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's Amendment filed on 1-22-07 has been received and entered in the case. The rejections of claims 1-3 and 5-24 set forth in the previous Office Action are maintained as indicated below.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 5-24 are rejected under 35 U.S.C. 102(b) as being anticipated by the Patterson et al reference (US Patent 6,653,957).

Patterson discloses in figure 2 a circuit for synthesizing a clock signal 5 of a particular frequency, comprising a first memory (i.e., encoder 11) storing a first byte pattern; a second memory (i.e., memory 17 or 19, see col. 9, lines 20-21) storing a second byte pattern; multiplexer circuitry 13 coupled to said first and second memory and operative to select a predetermined sequence comprising a at least one of each said first byte pattern and said second byte pattern wherein the first and second patterns in parallel (See col. 1, lines 13-22 and col. 8, lines 35-36); and serializer circuitry 25 that receives said predetermined sequence from said multiplexer circuitry and synthesizes said clock signal by converting said predetermined sequence into a serialized sequence of said selected first and second byte patterns as required by claim 1.

As to claims 2 and 3, col. 8, line 31 and 63, discloses the first and second patterns being 10-bit parallel data. Therefore, they are inherently comprised bits selected from the group consisting of logic LOW bits, logic HIGH bits.

As to claim 5, figure 2 shows the serializer circuitry receiving the first and second patterns in parallel and outputs said serialized sequence (i.e., internal clock 230) according to a serial a serial clocking frequency CLK 16.

As to claim 6, it is rejected for reciting an inherent result derived from the apparatus of claim 5.

As to claim 7, figure 2 discloses a control circuit (i.e., boundary scan test circuit) coupled to the MUX 13 wherein the MUX is responsive to the output 24 from the control circuit, said output instructing the MUX to selected the first and second patterns according to the predetermined sequence.

As to claim 8, the predetermined sequence from encoder 11 is inherently programmable and col. 10, lines 38-40, discloses elements 17 and 19 are programmable.

As to claims 9 and 10, figure 2 shows a differential circuitry 27 to convert the serialized sequence into a differential signal 28 and the differential signal is transmitted from said circuitry to receiver 38 as shown in figure 3.

As to claims 11-16, they are rejected for reciting an environment in which the above apparatus is applicable (See figure 1). Further, col. 2, line 66 to col. 3, line 4, disclose processing circuit mounted on a PCB.

As to claims 17-22, the scopes of these claims are similar to that of claims 1-3 and 7.

As to claim 24, it is inherent that the predetermined frequency is a frequency existing at or below said serial clocking frequency since the predetermined frequency is derived from the serial clocking frequency (i.e., clocking).

As to claim 23, the scope of claim is similar to that of claim 10. Therefore, it is rejected for the same reason set forth above.

Response to Arguments

3. Applicant's arguments filed 1-22-07 have been fully considered but they are not persuasive.

Regarding the rejection of claim 1 under 35 USC 102, Applicant has argued that "an encoder is at least functionally distinct from a memory", Examiner respectfully disagrees since an encoder is a memory for storing data and produces its data in a fashion depending on its coding. Therefore, memory circuits store and output data **with and without** (emphasis added) modification. Further, Applicant has argued that Patterson does not disclose a circuit for synthesizing a clock signal. Examiner respectfully reminds Applicant that pre-amble is not given patentable weight. Patterson's circuit comprises each and every components recited in claim 1. Therefore, Patterson's circuit is inherently capable of performing a function as required in the pre-amble of claim 1. Applicant also argued that MUX 13 of Patterson selects the output of encoder 11 during normal operation and does not intermix to synthesize a clock signal. Examiner respectfully disagrees since the above assertion is irrelevant with respect to the recitation of claim 1. Claim 1 merely calls for "selecting a predetermine sequence comprising at least one of each of the first byte pattern and the second byte pattern".

Regarding the rejection of claim 17 under 35 USC 102, Applicant has argued that the output of MUX 13 in Patterson's circuit consists exclusively of either input 12 or input 15, not a sequence combining data from both inputs to synthesize a clock signal. Examiner respectfully disagrees since Applicant's argument is based on the specification, not the recitation of claim (i.e., the recitation of claim does not call for limitation "combining data".)

Allowable Subject Matter

4. Claims 27-30 and 32-34 are allowed.

5. Claims 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose an apparatus and method thereof comprising elements being configured as recited in claims. Specifically, none of the prior art teaches or fairly suggests the following limitations:

- Said transmission circuitry synthesizes another clock cycle having a second predetermined frequency by serializing a second predetermined sequence of third and fourth byte patterns as required by claim 25. And,
- Said sequence comprises a predetermined number of said first byte pattern and a predetermined number of said second byte pattern as required by claim 27.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 571-272-1746. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

An T. Luu
2-23-07

TIMOTHY P. CALLAHAN
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